

# GLAST SWG Telecon Minutes

## June 2, 2005

### Attended:

David Band  
Guido Barbiellini  
Elliott Bloom  
Lynn Cominsky  
Chuck Dermer  
Neil Gehrels  
Kevin Grady  
Josh Grindlay  
Neil Johnson  
Tune Kamae  
Don Kniffen

Giselher Lichti  
Chip Meegan  
Julie McEnery  
Peter Michelson  
Jonathan Ormes  
Martin Pohl  
Steve Ritz  
David Thompson  
Stephen Thorsett  
Kathy Turner

Steve welcomed everyone and reviewed the agenda. The minutes for the previous telecons have been sent out and if there are any corrections, please let us know as soon as possible. They will also be on the website shortly.

### News from Swift - Neil

- Localized short burst on March 9<sup>th</sup>; a paper has been submitted to Nature.
- A burst on April 6 was observed with a large flare in the x-ray afterglow.
- All sky survey by BAT should be completed by year end.
- Having trouble with the star tracker, working to correct problem. Steve: GLAST is following the situation closely, since we use the same star tracker.

### Mission Report -Kevin:

- Completed budget rebaseline. We were very lucky: received budget to keep GLAST going. In the future, must live within budget and baseline schedule.
- Spacecraft: all flight boxes on track; \_ of the hardware has been received; structure qualified and harness intergraded in structure.
- Qwknut release mechanism GLAST uses for the solar arrays and Ku-band antenna had failures in testing on other programs. Goddard Center management is reviewing this situation and will likely mandate a change for all programs. Spectrum Astro is looking for an off the shelf mechanism that meets the requirements.
- Mission Integration Working Group (MIWG) meeting in August. Procurement of launch vehicle in September.
- First ground readiness test complete.
- Paid close attention to lessons learned from Swift.

## IDS Reports:

### Chuck Dermer:

1. I reviewed evidence for and models of high-energy radiation from GRBs in an invited talk for the meeting "Towards a Network of Atmospheric Cherenkov Detectors VII," at the Ecole Polytechnique, Palaiseau, Paris (27-29 April 2004). (This talk is posted on my website and the meeting website at <http://polywww.in2p3.fr/actualites/congres/cherenkov2005/>).
2. I spent nearly 3 weeks at the Kavli Institute for Theoretical Physics (KITP) in Santa Barbara in May at a mini-workshop entitled "UHECRs and their Source." Google "KITP online" to find a webcam of my talk "The Knee and Beyond" in this workshop.
3. At Santa Barbara, I nearly completed Chpt. 8, Photohadronic Processes, for a book I am writing entitled "High Energy Radiation from Black Holes," which is intended to be useful for GLAST modeling and analysis.
4. This week I completed 2 proposals; one for the IES program and another for the ATP program.
5. I am working with summer sabbatical Prof. Govind Menon, Troy University, on energy extraction from black holes, with Mr. Jeremy Holmes, Florida Institute of Technology, on simulations of cosmic rays from GRBs in the Galaxy, and Dr. Truong Le, NRL, on radiation processes at the Galactic Center

**Martin Pohl:**

1. I participated in the recent workshop at SLAC on Catalogue building and diffuse emission. The discussions among the people interested in diffuse emission and the foreground model were very useful to streamline the efforts of different groups and to avoid double work.
2. A paper on my variability and localization analysis of the EGRET Galactic Center source appears in the June 10 volume of the *Astrophysical Journal*.
3. Another paper, written together with Huirong Yan and Alex Lazarian from UWisc-Madison, is slated for the June 20 volume of *ApJ Letters*. It discusses the filamentary nature of the nonthermal X-ray emission from young SNR as being due to magnetic structures and not electron energy losses which had been suggested to imply a very efficient acceleration of cosmic-ray nucleons.

**Steve Thorsett**

Steve Thorsett reported on the status of several projects of interest to GLAST. The HEFT balloon experiment was successfully flown last month, an important step in the extended Phase A for the NuSTAR x-ray satellite which is currently expected to launch about a year after GLAST. The P-ALFA radio pulsar search consortium continues the major Arecibo pulsar search I described at the last face-to-face meeting. A significant concern remains whether sufficient follow-up time will be granted by the radio telescope TACs to allow measurement of the pulsar spin parameters quickly enough to identify which newly-discovered pulsars are important GLAST candidates before launch.

There was some discussion about the NSF senior review of ground-based telescope facilities, and the impact that closure of Arecibo (for example) would have on contemporaneous pulsar timing during the GLAST mission.

[Brenda Dingus was unable to attend]

**LAT Report - Peter:**

- Hardware - integration and test activities at SLAC are going well and smoothly, thanks to Elliott and the I&T team, and everyone producing

hardware. The last calorimeter is due from NRL to SLAC on June 21. \_ of trackers will be at SLAC shortly; 4 complete units integrated in grid.

- Schedule is #1 issue.
- LAT collaboration held a catalogue and diffuse modeling workshop at SLAC.
- Planning DC2 - Julie is chairing the steering committee and is leading the effort (both GBM and LAT included). DC3 is planned for 2007
- Collaboration Meeting - August 29-31, September 1 - mini symposium, September 2 - business meeting.
- ACD to ship to SLAC from GSFC in late July.

### GBMReport - Chip and Giselher:

#### Chip:

- EMI problem - will be resolved by next week.
- 1<sup>st</sup> flight detectors just arrived at Huntsville. Flight DPU has also arrived.
- Looking forward to end-to-end testing.

#### Giselher:

- Problems during shock test have been resolved.
- Sodium iodide - passed vibration test, and will be going to MPE for calibration.
- No in-depth TV test performed with power-supply box, but will do an abbreviated one.
- Power supply box is assembled and ready to be integrated.

### E/PO Report - Lynn:

- Mini course set up for high school and after-school programs - "You are Here - Your Place in the Universe". Presented by Sara, Phil and Lynn at a Charter High School. 5 day course - 80 students attended, mainly Hispanic students. Good experience. Assembled the presentations in a notebook; also available on power-point. Will be presenting to the Boys and Girls Club in Sonoma - 1 session per week for 5 weeks. Will be putting course on line.
- Been doing workshops and talks.
- Still working on Pop-up book.

- NOVA contract still being negotiated.
- Animation with voice over final draft will be ready in about a week.
- Space mysteries will be worked on this summer.
- Mini-Course -Modeling the Universal - was presented to HQ, Will be presented in September at the Astronomical Society of the Pacific.
- 3<sup>rd</sup> topic model to West End for review.
- Still struggling with NASA publications. Need to talk with Rich Harnden at HQ. ACTION ITEM: Steve and Lynn to talk to Rick at HQ.
- MCM - 1 \_ person working on them.

### GLAST User's Committee Meeting - Josh:

- Meeting Next week, June 6 and 7. Agenda was discussed. Actions items will be discussed at the meeting - listed on website.
  - Instituting a Science Talk on Day 2 of the meeting.
  - DC2 plans will be discussed at the the GUC meeting. Described in Peter's talk.
  - Final version of agenda will be ready tomorrow; to be posted on website.
- Josh asked how do users traditionally supported by DOE. get DOE support for analysis of GLAST data; Kathy responded by saying they have to apply as part of their usual process for University Program support - there is no competed Guest Investigator program.

### Galactic Center Region Mini-Symposium at SWG face-to-face - Chuck

- The agenda was discussed.
- Possible presenters were also discussed.
- Chuck to send the agenda with the possible presenters to the SWG for review.

### SWG face-to-face Meeting - Steve:

The agenda is being developed. Main topics were listed. E-mail Steve with any agenda items.

Agenda will be circulated well in advance of the meeting.

Adjourned.

Revised: 6/17/05